

ABSTRACT

An x-ray optical device includes an optic and an adjustable aperture that selectively occludes a portion of an x-ray beam. The adjustable aperture may be positioned between the optic and a sample and may be integrated with the optic or located in close proximity to the optic. The adjustable aperture enables a user to easily and effectively adjust the convergence of the x-rays. In doing so, the flux and resolution of the x-ray optical device can be optimized by using an optic having the maximum convergence allowed for all potential measurements, and then selecting a convergence for a particular measurement by adjusting the aperture.